PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Brunner Engineering & Manufacturing
800-900 X Street
Bedford, Indiana 47421

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T093-7549-00010	
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Management	Issuance Date: November 2, 2000 Expiration Date: November 2, 2005

First Minor Source Modification: 093-14347-00010 Issuance Date:

First Minor Permit Modification No.: 093-14395-00010	Pages Affected: 4, 5, 27, 28, 29
Issued by: Janet G. McCabe, Assistant Commissioner Office of Air Quality	Issuance Date: July 24, 2001

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary metal pressure vessels manufacturing plant.

Responsible Official:	Darryl Zupancic
Source Address:	800-900 X Street, Bedford, IN 47421
Mailing Address:	800-900 X Street, Bedford, IN 47421
Phone Number:	(812) 275-5931
SIC Code:	3443
County Location:	Lawrence
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Minor Source, under PSD or Emission Offset Rules; Major Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) paint spray booth, identified as #7, utilizing an air atomization system, coating a maximum of 911 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C4;

(b) One (1) paint spray booth, identified as PP1, utilizing an airless and air-assisted airless system, coating a maximum of 1180 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one stack, identified as PP-01; and

(c) One (1) natural gas fired bake oven, identified as BkO1, with a maximum heat input capacity of 1.65 million British thermal units per hour (MMBtu/hr), for drying the coated tanks from spray booth PP1, with emissions exhausting to stacks BkO-01 and BkO-02.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
- (1) one (1) furnace at 660 thousand Btu per hour,
- (2) one (1) furnace at 6.6 million Btu per hour,
- (3) one (1) furnace at 80 thousand Btu per hour ,
- (4) one (1) furnace at 65 thousand Btu per hour,

(5) one (1) furnace at 85 thousand Btu per hour,
(6) one (1) furnace at 120 thousand Btu per hour;
(7) one (1) furnace at 120 thousand Btu per hour,
(8) one (1) furnace at 120 thousand Btu per hour;
(9) one (1) water heater at 40 thousand Btu per hour,
(10) One (1) dry-off oven, identified as NDO1, rated at 0.5 MMBtu/hr and exhausting to one (1) stack, identified as NDO-01; and
(11) Two (2) water heaters, each rated at 1.5 MMBtu/hr.

(b) Combustion source flame safety purging on startup;

(c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(d) Machining where an aqueous cutting coolant continuously floods the machining interface;

(e) Degreasing operations performed with an aqueous-based phosphate cleaner (consists of an aqueous parts washer, identified as NW1 and exhausting to four (4) stacks, NW-01 to NW-04);

(f) The following equipment related to manufacturing activities resulting in the emission of HAPs below insignificant emission levels: brazing equipment, cutting torches, soldering equipment, welding equipment;

(g) Process vessel degassing and cleaning to prepare internal repairs;

(h) Paved and unpaved roads and parking lots with public access;

(i) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower;

(j) Other categories with emissions below insignificant thresholds:
(1) welding operations with PM-10 emission less than twenty-five (25) pounds per day,
(2) one (1) plate burner with PM-10 emissions less than twenty-five (25) pounds per day,
(3) one (1) hole burner with PM-10 emissions less than twenty-five (25) pounds per day,
(4) one (1) fork lift operation utilizing multiple forklifts with PM-10 emissions less than twenty-five (25) pounds per day, and
(5) aerosol spray paint cans with VOC emissions less than fifteen (15) pounds per day.

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:
(a) One (1) paint spray booth, identified as #7, utilizing an air atomization system, coating a maximum of 911 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C4;
(b) One (1) paint spray booth, identified as PP1, utilizing an airless and air-assisted airless system, coating a maximum of 1180 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one stack, identified as PP-01; and
(c) One (1) natural gas fired bake oven, identified as BkO1, with a maximum heat input capacity of 1.65 million British thermal units per hour (MMBtu/hr), for drying the coated tanks from spray booth PP1, with emissions exhausting to stacks BkO-01 and BkO-02.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to metal parts or products in each of the two (2) paint spray booths (identified as #7 and PP1) shall be limited to 3.5 pounds of VOC per gallon of coating less water delivered to the applicator, for air dried, forced warm air dried, or extreme performance coatings.

(b) Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2]

The PM from the two (2) paint booths (#7 and PP1) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.1.4 Volatile Organic Compounds (VOC)

Compliance with the VOC content contained in Condition D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

D.1.5 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the two (2) paint booths (#7 and PP1) are in operation.

D.1.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, the Permittee shall monitor the pressure drop across the dry filters twice per day when one or more of the paint booths are in operation. The pressure drop shall remain within the range established by the manufacturer's specifications.

(b) The Permittee shall, on a weekly basis, monitor surface coating booth stacks C4 and PP-01 for evidence of visible emissions while one or more of the booths are in operation. During this inspection, the Permittee shall also inspect the nearby ground for the presence of overspray.

(c) The Permittee, shall, on a semiannual basis, monitor for the presence of overspray on the rooftops.

(d) The Compliance Response Plan shall be followed whenever a condition exists that should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(e) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.1.7 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, the Permittee shall maintain records in accordance with (1) below. Records maintained for (1) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC usage limits and/or the VOC emission limits established in Condition D.1.1.

(1) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(b) To document compliance with Conditions D.1.5 and D.1.6, the Permittee shall maintain a log of daily, weekly, and semiannual inspections. The Permittee shall maintain a log of pressure drop readings, and record the dates that dry filters are replaced. The pressure drop log shall indicate the base measurement for establishing the pressure drop range.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

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Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Permit Modification to a Part 70 Operating Permit

Source Background and Description

Source Name:	Brunner Engineering & Manufacturing
Source Location:	800-900 X Street, Bedford, IN 47421
County:	Lawrence
SIC Code:	3443
Operation Permit No.:	T093-7549-00010
Operation Permit Issuance Date:	November 2, 2000
Minor Permit Modification No.:	093-14395-00010
Permit Reviewer:	NH/EVP

The Office of Air Quality (OAQ) has reviewed a modification application from Brunner Engineering & Manufacturing relating to the operation of a stationary metal pressure vessels manufacturing plant.

Explanation of Modification

On May 10, 2001, Brunner Engineering & Manufacturing submitted an application to the OAQ requesting modifications to their existing plant. The modifications consist of the following:

(a) Replacement of existing paint booths B1 and B2 with new paint booth PP1;

(b) Replacement of existing drying oven D1 with new bake oven BkO1 (only the oven is being replaced, the same natural gas burner from the drying oven will be used in the bake oven);

(c) Replacement of the existing parts washer with a new aqueous parts washer (the new aqueous parts washer will use an aqueous-based phosphate cleaner just as the existing parts washer did);

(d) Addition of a dry-off oven;

(e) Replacement of the existing 1.0 MMBtu/hr water heater with two (2) new 1.5 MMBtu/hr water heaters.

Brunner Engineering & Manufacturing was issued a Part 70 permit on November 2, 2000.

The changes listed below have been made to the Part 70 Operating Permit (T093-7549-00010).

1) The following changes have been made to Section A.2 to include the new emission units and to delete the units removed from the source.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

~~(a) One (1) paint spray booth, identified as B1, utilizing an airless and air-assisted airless system, coating a maximum of 968 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C1;~~

~~(b) One (1) paint spray booth, identified as B2, utilizing an airless and air-assisted airless system, coating a maximum of 968 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C2;~~

(~~c~~**a**) One (1) paint spray booth, identified as #7, utilizing an air atomization system, coating a maximum of 911 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C4; ~~and~~

~~(d) One (1) natural gas fired drying chamber, identified as D1, with maximum heat input capacity of 1.65 million British thermal units per hour (MMBtu/hr), for drying the coated tanks from spray booths B1 and B2, with emissions exhausting to stack D01.~~

(b) One (1) paint spray booth, identified as PP1, utilizing an airless and air-assisted airless system, coating a maximum of 1180 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one stack, identified as PP-01; and

(c) One (1) natural gas fired bake oven, identified as BkO1, with a maximum heat input capacity of 1.65 million British thermal units per hour (MMBtu/hr), for drying the coated tanks from spray booth PP1, with emissions exhausting to stacks BkO-01 and BkO-02.

2) The following changes have been made to Section A.3 to include the new insignificant units and to delete the insignificant units removed from the source.

A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour:
- (1) one (1) furnace at 660 thousand Btu per hour,
- (2) one (1) furnace at 6.6 million Btu per hour,
- (3) one (1) furnace at 80 thousand Btu per hour ,
- (4) one (1) furnace at 65 thousand Btu per hour,
- (5) one (1) furnace at 85 thousand Btu per hour,
- (6) one (1) furnace at 120 thousand Btu per hour;
- (7) one (1) furnace at 120 thousand Btu per hour,
- (8) one (1) furnace at 120 thousand Btu per hour;
- (9) one (1) water heater at 40 thousand Btu per hour, ~~and~~
- ~~(10) one (1) water heater at 1 million Btu per hour;~~
- **(10) One (1) dry-off oven, identified as NDO1, rated at 0.5 MMBtu/hr and exhausting to one (1) stack, identified as NDO-01; and**
- **(11) Two (2) water heaters, each rated at 1.5 MMBtu/hr.**

(b) Combustion source flame safety purging on startup;

(c) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(d) Machining where an aqueous cutting coolant continuously floods the machining interface;

~~(e) Degreasing operations performed with an aqueous-based phosphate cleaner;~~

(e) Degreasing operations performed with an aqueous-based phosphate cleaner (consists of an aqueous parts washer, identified as NW1 and exhausting to four (4) stacks, NW-01 to NW-04);

(f) The following equipment related to manufacturing activities resulting in the emission of HAPs below insignificant emission levels: brazing equipment, cutting torches, soldering equipment, welding equipment;

(g) Process vessel degassing and cleaning to prepare internal repairs;

(h) Paved and unpaved roads and parking lots with public access;

(i) Blowdown for any of the following: sight glass, boiler, compressors, pumps, and cooling tower;

(j) Other categories with emissions below insignificant thresholds:
(1) welding operations with PM-10 emission less than twenty-five (25) pounds per day,
(2) one (1) plate burner with PM-10 emissions less than twenty-five (25) pounds per day,
(3) one (1) hole burner with PM-10 emissions less than twenty-five (25) pounds per day,
(4) one (1) fork lift operation utilizing multiple forklifts with PM-10 emissions less than twenty-five (25) pounds per day, and

(5) aerosol spray paint cans with VOC emissions less than fifteen (15) pounds per day.

3) The following changes have been made to the facility description box in Section D.1 to include the new emission units and to delete the units removed from the source.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:

~~(a) One (1) paint spray booth, identified as B1, utilizing an airless and air-assisted airless system, coating a maximum of 968 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C1;~~

~~(b) One (1) paint spray booth, identified as B2, utilizing an airless and air-assisted airless system, coating a maximum of 968 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C2;~~

(~~c~~**a**) One (1) paint spray booth, identified as #7, utilizing an air atomization system, coating a maximum of 911 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one (1) stack, identified as C4; ~~and~~

~~(d) One (1) natural gas fired drying chamber, identified as D1, with maximum heat input capacity of 1.65 million British thermal units per hour (MMBtu/hr), for drying the coated tanks from spray booths B1 and B2, with emissions exhausting to stack D01.~~

(b) One (1) paint spray booth, identified as PP1, utilizing an airless and air-assisted airless system, coating a maximum of 1180 square feet of steel tanks per hour, using dry filters for particulate matter overspray control, and exhausting to one stack, identified as PP-01; and

(c) One (1) natural gas fired bake oven, identified as BkO1, with a maximum heat input capacity of 1.65 million British thermal units per hour (MMBtu/hr), for drying the coated tanks from spray booth PP1, with emissions exhausting to stacks BkO-01 and BkO-02.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

4) Condition D.1.1 has been revised to indicate that only two (2) paint spray booths are at the plant and subject to 326 IAC 8-2-9.

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to metal parts or products in each of the ~~three (3)~~ **two (2)** paint spray booths **(identified as #7 and PP1)** shall be limited to 3.5 pounds of VOC per gallon of coating less water delivered to the applicator, for air dried, forced warm air dried, or extreme performance coatings.

(b) Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

5) Condition D.1.2 has been revised to indicate that only two (2) paint spray booths are at the plant and subject to 326 IAC 6-3-2.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2]

The PM from the ~~three (3)~~ **two (2)** paint booths (~~B1, B2 and~~ #7 **and PP1**) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

6) Condition D.1.5 has been revised to indicate that only two (2) paint spray booths are at the plant.

D.1.5 Particulate Matter (PM)

The dry filters for PM control shall be in operation at all times when the ~~three (3)~~ **two (2)** paint booths (~~B1, B2 and~~ #7 **and PP1**) are in operation.

7) Condition D.1.6 has been revised to update the stacks for the two (2) paint spray booths.

D.1.6 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, the Permittee shall monitor the pressure drop across the dry filters twice per day when one or more of the paint booths are in operation. The pressure drop shall remain within the range established by the manufacturer's specifications.

(b) The Permittee shall, on a weekly basis, monitor surface coating booth stacks ~~C1, C2 and~~ C4 **and PP-01** for evidence of visible emissions while one or more of the booths are in operation. During this inspection, the Permittee shall also inspect the nearby ground for the presence of overspray.

(c) The Permittee, shall, on a semiannual basis, monitor for the presence of overspray on the rooftops.

(d) The Compliance Response Plan shall be followed whenever a condition exists that should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(e) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Justification for the Modification

The Part 70 Operating permit is being modified through a Part 70 Minor Permit Modification. This modification is being performed pursuant to 326 IAC 2-7-12(b).

Recommendation

The staff recommends to the Commissioner that the Minor Permit Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on May 10, 2001.

Conclusion

This permit modification shall be subject to the conditions of the attached **Part 70 Permit No. 093-7549-00010**.